1.7 Program Assessment

1.7.1 Introduction

An integral task of the City's Urban Runoff Management Program is to assess the progress of the program towards its effort to reduce pollutants in urban runoff and storm water. The Program Assessment component describes both the annual and long-term strategy to evaluate the accomplishments of the Storm Water Pollution Prevention Program ("Storm Water Program") using both direct and indirect measurements. This component also discusses the Storm Water Program reporting requirements.

Primary responsibility for the assessment of the overall program is with the Storm Water Program in the General Services Department. However, other departments subject to requirements within the Urban Runoff Management Program are responsible for self-evaluation and reporting to the Storm Water Program. Each of the components of the City's Urban Runoff Management Plan contains an Assessment Form that will be distributed to responsible departments to provide an evaluation of each component. These component assessments will rely heavily on ongoing record keeping, and status reports for the Urban Runoff Management Plan annual assessments.

In the following sections, the City's overall assessment program is described and reference is provided to each of the component's individual assessment plans. Table 1.7-1 shows the requirements of the San Diego Municipal Storm Water Permit and where each of the requirements are addressed in this component of the Urban Runoff Management Plan.

Table 1.7-1 Permit Requirements – Program Assessment.

Section	***Requirement (Summary)***	***Permit Section***
1.7.2	Develop a long-term strategy for assessing the effectiveness of the Urban Runoff Management Program using direct and indirect measurements.	F.7.a
1.7.2	Include results of Urban Runoff Management Program assessment in Annual Report submittal.	F.7.b
1.7.3	Develop a budget for storm water expenditures for each fiscal year covered by the Municipal Permit	F.8
1.7.4	Document activities for Jurisdictional Urban Runoff Management Program Annual Report	I

The objectives of this program component are to:

- Assess the performance of the Storm Water Program;
- Assess the effectiveness of improving receiving water quality;

- Identify changes that will increase the effectiveness of the components within the program;
- Identify a phased implementation schedule for the assessment activities and estimated annual costs needed to implement the Program Assessment component through the five-year life of the Municipal Permit.
- Document assessment activities conducted which will be submitted annually to the Storm Water Pollution Prevention Program along with an annual activities report.

1.7.2 Activities

Program Assessment

Assessment activities include annual and long-term assessment of the program through direct and indirect measurement. The Urban Runoff Management Program annual assessments will rely on Assessment Forms developed for each component that report both indirect measures of water quality, such as the performance or accomplishments of the individual components and overall program, and direct measurements, such as water quality monitoring results and pollutant load reduction estimations. Over the long-term, assessments will rely more heavily on direct measures of water quality as monitoring data becomes more statistically valid.

Direct measurements include estimates of the reduction of pollutant load. The most direct measure of program effectiveness is a reduction of pollution in urban runoff or storm water as measured through monitoring. Water quality monitoring has been performed for eight years and dry weather urban runoff monitoring has been performed for nine years. Because of the nature and inherent uncertainties of water quality monitoring associated with variability of flow conditions, sampling, handling and testing techniques, and analysis of the data, many more years of monitoring will be required in order to develop conclusive trends in water quality in the area. Therefore, the assessment program will rely more heavily on other direct forms of assessment to evaluate the City's Urban Runoff Management Program in the short term. These include:

- Quantifying the pollutant load reduction due to sediment, debris and trash removal programs,
- Estimating the quantity of pollutants removed through BMPs

Indirect measurements include quantifying activities that cannot be linked directly to a measurable pollutant load reduction. Examples of some of the assessment tools for indirect measurement of the individual components include tracking the following:

- Rate of occurrence of inspections, violations and enforcement actions
- Public information survey results over time
- Number of complaints and type of complaints on hotlines
- Quantity of educational materials distributed

Indirect measures of effectiveness must be used with caution and required a great deal of interpretation in order to be meaningful. For example, an annual count of the number of enforcement actions taken in the commercial/industrial components may seem like a good indicator of program performance. In the short-term this may be correct, in other words, a large number of inspections is indicative of an aggressive program. However, in the long-term, the true measure of effectiveness is if all commercial/industrial facilities are in compliance with the City's ordinances, have BMPs in place, and conduct business in such a way that they do not degrade water quality. In this case, a low number of enforcement actions would be indicative of high compliance.

With this in mind, the City has outlined the following assessment strategy using both quantitative and qualitative measure of program effectiveness. As discussed above, each component will perform an annual self-assessment. This assessment will include quantifying specific activities appropriate to their component. It will also include a qualitative accounting for the component effectiveness. An Assessment Form will be developed for each component to allow for consistent reporting of specific activities. The self-assessment will consist of evaluating this quantitative and qualitative data against the general goals of the component. Based on the self-assessment, each component will identify changes or improvements to their activities.

Concurrent with the annual component self-assessments, the overall program assessment will consist of a review of the program as a whole. This assessment will focus on the effectiveness of the Urban Runoff Management Program to achieve the overall program goal of reducing pollutants in urban runoff and storm water. This program assessment will track and evaluate the direct and indirect measures of effectiveness, as well as review the individual component self-assessments, and recommend changes and improvement where necessary.

In the first few years of the program assessment, emphasis will be placed on developing a baseline for long-term evaluation. The first two years of the program assessment will focus on basic activity measurements, consistent reporting, and the establishment of baselines. The third year will focus on shifting the assessment to a watershed approach. The watershed assessment will begin to focus on determining the more long-term trends of component activities. It is hoped that in subsequent years, the program assessment will include assessment of the program based on trends as compared to the baselines established in the first several years of the Permit period. Also, in the long term, the program should be able to begin looking at water quality data as a more reliable assessment tool.

The following section outlines the direct and indirect measurements that the City plans to have used by each component for annual and long-term assessments using. This list will be evaluated and modified appropriately as the program progresses. Components that do not have measurable activities, such as, inventories and watershed planning are not shown.

Chapter 1: Program Framework

Public Participation
- Use of storm water hotline
- Participation in public storm water events
- Complaints logged regarding storm water violations

Education
- Annual awareness surveys completed
- Percent of population statistically represented by awareness survey
- Storm water developed
- Storm water educational/instructional materials/brochures printed
- Storm water advertisements (public service announcements (PSA), display ads, interviews, purchased on-air time, radio commercials, etc.)
- Employees trained on general and activity-specific storm water issues
- Percent of employees trained on general and activity-specific storm water issues

Enforcement of Storm Water Ordinance
- Number of citations for storm water ordinance violations
- Number of Notices of Violations (NOV) for storm water ordinance violations
- Number and amount of civil penalties assessed

Water Quality Monitoring
- Number of sites monitored during dry weather
- Number of coastal outfalls monitored during wet weather

Chapter 2: Storm Water Best Management Practices

Municipal Facilities Operations and Management:
- Storm Water Pollution Prevention Plans prepared/implemented
- Number of municipal facilities inspected for storm water compliance
- Quantity of material removed from storm water conveyance system
- Number of major structural BMPs in place jurisdiction
- Illicit connections corrected
- Illegal dischargers cited with Notices of Violation

Household Hazardous Waste (HHW) Program

- Tons of HHW collected

City-Owned Leased Properties
- Number of leases restructured to include Storm Water Pollution Prevention Plans (SWPPP)

Non-Emergency Fire Fighting
- Procedures implemented to minimize the water quality impact of non-emergency fire fighting

Commercial/Industrial Uses
- Number of facilities in compliance with State General Industrial Permit
- Number of noncompliant facilities referred to the RWQCB
- Number of facilities inspected
- Quantity of educational material distributed
- Number of educational workshops performed

Residential Uses
- Educational materials produces for residential areas

Chapter 3: Planning and Development

Land-Use Planning
- Changes in General Plan

Development Review & Permitting
- Number of developments complying with the State General Permit for Construction
- Number of staff-approved projects subject to SUSMPs requirements
- Number of SWPPPs reviewed
- Number of construction (building) sites inspected
- Number of planning groups educated on storm water principles

City CIP Project Planning & Design
- Number of developments complying with the State General Permit for Construction
- Number of SWPPPs reviewed
- Number of high priority construction sites in inventory

Construction Contracts
- Number of high priority sites in inventory
- Number of developments complying with the State General Permit for Construction

- Number of construction sites inspected
- Number of construction inspectors trained to enforce storm water ordinances
- Number of noncompliant sites referred to the RWQCB
- Number of follow-up enforcement activities resulting in Notices of Violation or citations

Program Reporting

This section describes the content and schedule for the reporting that will take place by the Storm Water Program. Reporting requirements, and where they are discussed in the Urban Runoff Management Plan, are shown in Table 1.7-2 Reporting Requirements. In addition, a discussion is provided herein of the annual reports that will be submitted, including the Jurisdictional Urban Runoff Management Program Annual Report, Receiving Waters Monitoring Annual Report, and Watershed Annual Report.

Table 1.7-2. Reporting Requirements.

Permit Section	Reporting Requirement	Reporting Method	URMP Component Discussion
B.3	Identification of discharges not to be prohibited	JURMP	1.3 Enforcement of SW Ordinances
C.2.a	Report discharges that cause or contribute to exceedences of applicable water quality standards	JURMP (criteria) JURMP Annual Report	1.3 Enforcement of Storm Water Ordinance
D.2	Certification of Legal Authority	Previously Submitted	
F.2.i	Construction – Reporting of Non-compliant Sites	JURMP (criteria) JURMP Annual Report	3.4 Construction Contracts
F.3.b (8)	Industrial – Reporting of Non-compliant Sites	JURMP (criteria) JURMP Annual Report	2.5 Industrial & Commercial Uses
H.3	Universal Reporting Requirements, (JURMP Submittal)	JURMP Watershed & URMP Annual Reports	Certified Statement Executive Summary Introduction
I.1.b(1)	Reports of Illicit Discharges (i.e. complaints) and how each was resolved (indicating referral source)	JURMP Annual Report	1.4 Water Quality Monitoring (IC/ID Activity)
I.1.b(2) & (3)	Inspections conducted and enforcement taken	JURMP Annual Report	1.3 Enforcement of Storm Water Ordinance 1.4 Water Quality Monitoring 2.1.1 -- 2.1.15 Municipal Facilities Components 2.5 Industrial & Commercial Uses 3.4 Construction Contracts

Permit Section	Reporting Requirement	Reporting Method	URMP Component Discussion
I.1.b(4)	Education efforts conducted	JURMP Annual Report	1.2 Education 1.3 Enforcement of Storm Water Ordinance 1.4 Water Quality Monitoring All Chapter 2 components All Chapter 3 components
I.1.c	Public participation mechanisms utilized	JURMP Annual Report	Public Participation
I.1.d	Summary of revisions to the JURMP	JURMP Annual Report	All components
I.1.e	Summary of all urban runoff related data not included in annual monitoring report (i.e. special studies)	JURMP Annual Report	1.4 Water Quality Monitoring
I.1.f	Budget for upcoming year	JURMP Annual Report	All components
I.1.g	Identification of management measures proven to be ineffective	JURMP Annual Report	All components
J	Watershed URMP	Watershed URMP	1.6 Watershed Planning
M	Watershed URMP Annual Report	Watershed URMP Annual Report	1.6 Watershed Planning
I.1.h	Identification of water quality improvements or degradation	JURMP Annual Report	1.4 Water Quality Monitoring
Attachment B – V	Receiving Waters Monitoring Annual Report	Monitoring Annual Report	1.4 Water Quality Monitoring
Attachment E - 5	Dry Weather Analytical Monitoring Map & Procedures	JURMP	1.4 Water Quality Monitoring
Attachment E - 7	Summarize and Report Dry Weather Analytical Monitoring	JURMP Annual Report	1.4 Water Quality Monitoring

Jurisdictional Urban Runoff Management Program Annual Report

The Jurisdictional Urban Runoff Management Program Annual Report will consist of an account of the activities that the City has undertaken over the previous year to protect and improve water quality of rivers, bays and the ocean in the region. The activities of each component will be reported to the Storm Water Program in October of each year in the form of the Annual Assessment Forms. The Storm Water Program will then compile the annual report to be submitted to the RWQCB via the Principle Copermittee.

The annual report will quantify specific actions, including illicit connection/ illegal discharge cases (reports and follow-up activities), inspections, enforcement actions, and educational activities. It will provide a summary of non-compliant sites reported to the Regional Board, including construction, industrial, and non-storm water discharges. Any additional water quality projects undertaken by the City will be described including

environmental restoration, wetland recovery, BMP implementation, and special studies. Appropriate water quality data associated with these projects will also be reported.

The annual report will conclude with an assessment of the Urban Runoff Management Program and the modifications that may be incorporated into the program in the following year.

Receiving Waters Monitoring Annual Report

Monitoring data will be reported to Regional Board in three submittals. Dry Weather Analytical Monitoring data will be submitted in the City's Jurisdictional URMP Annual Report. Regional Wet Weather Monitoring data will be submitted in an annual report by the San Diego County Regional Wet Weather Storm Water Quality Monitoring Program. Coastal Water Quality Monitoring data and Toxics Hot Spots Monitoring data will be submitted annually to the Regional Board via the Principal Permittee.

Watershed Annual Reports

In January 31, 2004, the first Watershed URMP Annual Reports will be submitted. These reports will be specific to each watershed. These annual reports will consist of an account of the collaborative activities that the City and copermittees within each watershed have undertaken over the previous year.

1.7.3 Phasing

Year 1 (July 1, 2001 – June 30, 2002):

- Develop/prepare Assessment Forms for the appropriate program components.
- Develop/prepare standardized reporting format for appropriate program components.
- Collect baseline assessment data from individual components and develop appropriate assessment tools (trend analysis, graphing, statistical analysis) for evaluation and analysis of data.
- Prepare Annual Assessment Form with assessment conclusions and recommendations.

Year 2 (July 1, 2002 – June 30, 2003):

- Collect baseline assessment data from individual components and develop appropriate assessment tools (trend analysis, graphing, statistical analysis) for evaluation and analysis of data.
- Revise assessment program based on conclusions and recommendations of Annual Assessment Form.
- Prepare Annual Assessment Form with assessment conclusions and recommendations.

Year 3 (July 1, 2003 – June 30, 2004):

- Shift assessment program to watershed based
- Revise assessment program based on conclusions and recommendations of Annual Assessment Form.
- Prepare Annual Assessment Form with assessment conclusions and recommendations.

Year 4 (July 1, 2004 – June 30, 2005):

- Revise assessment program based on conclusions and recommendations of Annual Assessment Form.
- Prepare Annual Assessment Form with assessment conclusions and recommendations.

Year 5 (July 1, 2005 – June 30, 2006):

- Evaluate planned long-term assessment program
- Revise assessment program based on conclusions and recommendations of Annual Assessment Form.

- Prepare Annual Assessment Form with assessment conclusions and recommendations.

Actual implementation of the activities listed above is dependent upon identification of funding in future yearly budgets and City Council approval.

1.7.4 Annual Assessment

The following form is representative of the quantitative and qualitative measures that will be tracked by the Storm Water Program regarding the Program Assessment component in order to prepare the Jurisdictional Urban Runoff Management Program annual assessment. ***These assessment factors and questions are presented for information only; some questions may be modified prior to each annual assessment period, and not all of the factors or questions below may apply to each component's responsible department(s)***. Prior to each fiscal year, a tailored Annual Assessment Form will be distributed to responsible departments, and will include an Excel spreadsheet containing direct and indirect quantitative and qualitative measures similar to the example below. The Storm Water Program will provide a blank copy of the Annual Assessment Form and additional guidance to department management prior to the beginning of each fiscal year. Submission of this report will require department director approval. Results of the annual assessment will be submitted to the Regional Board in the Urban Runoff Management Program Annual Reports.

Program Assessment Form - Program Assessment

QUANTITATIVE:

At this time there are no quantitative measures that lend themselves to the Assessment component. These measures may be added in the future if appropriate based on the annual self-assessment.

QUALITATIVE:

1. Describe the major activities of the Assessment component over the past year.

2. Summarize how well these activities served as program assessment tools.

2. Summarize new activities or improvements to the Assessment component be implemented next year as a result of your program assessment.

3. Other comments.

FINANCIAL ASSESSMENT:

Estimated annual storm water expenditures:
Personnel Expenditures: _____
Non-personnel Expenditures: _____